| Work Order I June-12-13 9:16:37 | | 2913 | | *102913* | | | | | | | |
|---|----------------------|---|---|-----------------------|---------------------------|------------|--------------|---------------|-------------------|------------------|----------------|
| Revision ID: | 917-3 | | A | Accept | *N900 | 740 | 100 |)* s | etup Star Stop | ı Vı | S1* |
| | sher 6/13 1/13 | Start Qty: 40.00 Req'd Qty: 40.00 | *40* *40* | | Cust Item II Customer: |) : | | | | ''I N . | S2* |
| | | an: ML5 | Date: 13-06-13 | Tooling: _ SPC (Y/N): | Da Da | | | R | un Star Stoj | | R1* R2* |
| Sequence ID/ Work Center ID | | Operation Description | | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
| Draw Nbr | Rev | vision Nbr | | | | | | | | | , |
| D3917 | Α | | | | : | | | | | | |
| *100 *100* Hardinge Hardinge CNC Lathe Sm | nail | Memo TURN AS FOLIO RE DWG REV | PER FOLIO FA876 & DWG V:_ _A^ | 0.00 | J. | 3-06-1 | Ų | 40 | _Ø | | . 1 |
| | | DEBURR | | | | | | | | | · |
| 110 *110* QC Quality Control | | QC2- Inspect parts off r | nachine FAI/FAIB | 0.00 | | 13-06- | 16 | 40 | Ø | | |

| DQA: | | _ Date: | | | . WORK ORDER NON | ~ | | DRAARICE / LIDE | \ATC | | | | \RT |
|--|--|---|---------------|------|--|-----|--|---|---|---|---|---|-----------------|
| QA Closed: | | Date: | | | WORK ORDER NON- | -C(| JINFO | RIVIAINCE / UPL | | ork Order up | odate only | AER | OSPACE |
| Work Order | r· | | | | DISPOSITION | | | | AGAINST DE | PARTMENT, | /PROCESS | | |
| Part No | 0 | | | | Rework Scrap Use-as-is Suspected Unapproved | | Thern | Machining noforming | Crosstube Small Fab Finishing Composite | 4 | Water Jet d. Eng. Coor. re/Packaging Supplier | ⊣ | ring ality ther |
| NCK W | u | | | | Suspected Onapproved | 1 | | Large Fab | composite[| J | 20ppilei [| | Ш |
| Root Cause | Date | Step | Qty | Desc | ription of work order update or non-conformance | | nitial ief Eng | Action Descript | | Sign & Date | Verification | QC Ins | pector |
| Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved | | | | | | | | | | | | | |
| | | | | | | FA | ULT CAT | EGORY | | | | | |
| Landin | Bending Centre N Cracks Crimp/K Cuffs Crushing Heat Tre Inspection | lot Concer ink/Ripple 3 eat on Strip in | /Wave Tube | | General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish | | Grain Hardwa Inspecti Instruct Misalig Mislabe Misread Off-set | on Incomplete/Unquions Incomplete/Unc ions Incomplete/Unc ined/off center iled | | Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/ | tolerance ct ssing Vrong | Pressure/Formula Set-up Temperatu Weld Wrong Stoo | re/Cure |
| | | wist in Tub | | | Fit/Function | | 1 | Sequence | | | | | |

Work Order ID 102913 *102913* Page 2 June-12-13 9:16:37 AM Setup Start Accept *N900040100* Item ID: D3917-3 **Revision ID:** Item Name: Washer *40* **Start Oty: 40.00 Start Date:** 6/06/13 **Cust Item ID:** Required Date: 6/11/13 Req'd Qty: 40.00 **Customer:** Reference: Run Date: ' Tooling: Date: Process Plan: Approvals: Stop Date: _____ SPC (Y/N): Date: ____ Reject Reject Insp. Tool ID Tool # Plan Accept Set Up/ Sequence 1D/ **Operation** Code Qty Qty Number Stamp Work Center ID **Run Hours** Description OC8- Inspect parts - second check 0.00 120 40 3.6.16 *120* 0.00 QC Memo Quality Control Identify as per dwg & Stock Location: 130 *130* 0.00 Packaging Memo Packaging OC21- Final Inspection - Work Order Release 0.00 140 0.00 QC

Memo

Quality Control

| DQA: | | | . Date: | | | | | | | | | | | ™ ∂ΔRT | |
|--|-------------|--|---|-------|------|--|-----|--|---|-------------------------------------|---|--|---|---|--|
| QA Closed: | | | Date: | | | WORK ORDER NON- | -C(| ONFO | RMANCE / UF | | Vork Order uj | odate only | | AEROSPACE | |
| Work Orde | DISPOSITION | | | | | | | AGAINST DEPARTMENT/PROCESS | | | | | | | |
| Part f | ٠ . No | | | | | Rework Scrap Use-as-is | | | Skid-tube Machining noforming | Crosstube Small Fab Finishing | | Water Jet d. Eng. Coor. re/Packaging | | Engineering Quality Other | |
| NCR I | NO | | | | | Suspected Unapproved | | | Large Fab | Composite | | Supplier | Ļ | | |
| Root Cause | | Date | Step | Qty | Desc | ription of work order update or non-conformance | • | Initial nief Eng | Acti Descr | | Sign & Date | Verificatio | n | QC Inspector | |
| Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved | | | | | | | | | | | | | | | |
| | | | | | | | FAI | ULT CAT | EGORY | | | | | | |
| Landi | | Gear Bending Centre No Cracks Crimp/Kir Cuffs Crushing Heat Trea Inspection Marks/Ch Turning S | nk/Ripple nt n Strip in natter | /Wave | | General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish | | Grain Hardwa Inspecti Instruct Misalig Mislabe Misread Off-set | on Incomplete/Un ions Incomplete/U ned/off center lled | · - | Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/ | tolerance ct ssing Vrong | | Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other | |
| | | Wave/Tw | ist in Tub | e | | Fit/Function | | Out of S | equence | | | | | | |

June-12-13 9:16:36 AM

Work Order ID:

102913

Parent Item:

D3917-3

Parent Item Name:

Washer

Start Date: 6/06/13

Required Date: 6/11/13

Start Qty: 40.00

Required Qty: 40.00

Comments:

Ipp Rev:A New Issue 09-12-02 JLM Verified by:DD

10.02.22 verified by:EC

IPP Rev:B as per dwg REV.A DD

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| MDELRINR0.750 Delrin Round Bar 0.75" | | Purchased | No | | | 100 | f | 107.2960 | 0.02 | 600 | Shi | 3-04-14 | , |
| | | | | Location | | Loc Qty | Lo | c Code | | | | | |
| | | | | MAT018 | | 107.296 | | | | | | | |
| | | | | 116 | 183 | 4.8 | | | | | | | |
| | | | | 117 | 273 | 4.665 | | | | | | | • |
| | | | | 117 | 322 | 0.94 | | | - | | | | (|
| | | | | 121 | 783 | 27.49 | | | | <u></u> | | | 1 |
| | | | | 124 | 834 | 40 | | | | | | | |
| | | | | 124 | 957 | 29.401 | | | _ e (e | <i>c</i> co' | | | |

Material not pulled

4

.

| DQA: | | | - Date: | | | | | | | | | | ™ カΔRT |
|---------------|------|-----------|------------|-----------|-------------|-----------------------------------|----------|----------|------------------------|------------------------|---------------|--------------------------|--------------------|
| QA Closed: | | | Date: | | | WORK ORDER NON | -C(| ONFO | RMANCE / UI | | Work Order uj | odate only | AEROSPACE |
| Work Ord | or: | | | | | DISPOSITION | | | | AGAINST | DEPARTMENT | /PROCESS | |
| i | | | | | | Rework | | | Skid-tube | Crosstube | | Water Jet | Engineering |
| Part f | Vo. | | | | | Scrap | | i | Machining | Small Fab | | d. Eng. Coor. | Quality |
| NCR I | Vo. | | | · · · · · | | Use-as-is Suspected Unapproved | | Thern | noforming Large Fab | Finishing Composite | Rec/Sto | re/Packaging Supplier | Other |
| Root | | | | | Desc | ription of work order update | | Initial | Act | ion | Sign & | | |
| Cause | | Date | Step | Qty | | or non-conformance | Ch | nief Eng | Descr | ription | Date | Verification | QC Inspector |
| Design | | | | | | | | | | | | | |
| Doc/Data | | | | · | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | | | | |
| Handling/Pre | | | | | | | | | | | | | |
| Material | | | | | | | | | | | | | |
| Operator | | | | | | | | | | | | | |
| Offset/Setup | | | | | | | <i>'</i> | | | | | | |
| Process | | | | | | | | | | | | | |
| Supplier | | | | | | | | | | | | | |
| Training | | | | | | | | | | | - 1 | | |
| Transport | | | | | | | | | | | | | |
| Unapproved | | | | | | | | | | | | | |
| | | | | | | | FA | ULT CAT | regory | | | | |
| Landi | ng (| Gear | | | | General | | | | | | _ | |
| | | Bending | | | L_ | Bend ~ | | Folio/P | rogram | | Outside Dim | ensions | Pressure/Forced |
| | | Centre No | ot Concer | ntric | | BOM/Route | | Grain | | | Over/Under | tolerance | Set-up |
| | | Cracks | | | | Broken/Damage/Defect | | Hardwa | re | | Part Incorre | ct [| Temperature/Cure |
| | | Crimp/Kir | nk/Ripple | /Wave | | Burrs | | Inspecti | on Incomplete/Un | qualified | Part Lost/Mi | ssing | Weld |
| | | Cuffs | | | | Contamination | | Instruct | ions Incomplete/U | Inclear | Part Moved | Γ | Wrong Stock Pulled |
| | · | Crushing | | | | Countersink | | Misalig | ned/off center | | Positioned V | Vrong | |
| | | Heat Trea | at | | | Cut Too Short | | Mislabe | led | Ì | Power Loss/ | Surge | Other |
| | | Inspectio | n Strip in | Tube | | Drawing | | Misread | ı | _ | | _ | |
| | | Marks/Ch | natter | | | Drill Holes | | Off-set | | | | | |
| | | Turning S | equence | | | Finish | | Out of 0 | Calibration | | | | |
| | | Wave/Tw | ist in Tub | e | | Fit/Function | | Out of S | equence | | | | |

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

| DART AEROSPACE LTD | Work Order: | 102913 |
|------------------------------|--------------|-------------|
| Description: Washer | Part Number: | D3917-3 |
| Inspection Dwg: D3917 Rev: A | | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

| Y | First Article | Protot | woo |
|---|---------------|--------|-----|
| | FIRST ARTICLE | Protot | ype |

| | | - y | | | | | |
|----------------------|---------------|---------------------------|----------|------------|-------------------------|--------------|--|
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Co | mments |
| Ø0.65 | +/-0.030 | e 654 | | | SLO8 | Vern | |
| 0.06 | +0.000/-0.020 | 057 | 1// | | 1. | | |
| Ø0.257 | +0.006/-0.001 | .052 | - | | $+$ $ \psi$ | | · · · · · · · · · · · · · · · · · · · |
| | | | | | | | |
| | | | | | | | |
| | | | | | , | | |
| | | | | | | | |
| | | P. M. 1171 1171 1111 1111 | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | ······································ |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | -5, | | | | | | |
| | | | | : | | | |
| | | | | | | | T |
| | 1 | | | | | | |
| | , | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | <u> </u> | | | | | |
| | | | | | | · | |
| | | | | | | | |
| | 1 | | - DA | <u>Ş</u> , | | | |
| Measured by: | St | Audited by: | 9-8 | 9 | Prototype A | pproval: | N/A |
| Date: | 13-06-16 | Date: | 3-6-11 | | | Date: | N/A |
| Rev Date | Change | | | | Revis | ed by∧ | Approved |
| A 10.04.01 | New Issue | | | | KJ | 91 | 1/1/1 |

